Consequences of cutting canines in Greenland sled dogs

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Documentation of the dental pathology caused by cutting canines as the dog owners were obliged to do according to the law, was requested by the official vet. The purpose was to collect data and thereby arguments for changing the law towards a ban against traumatizing the teeth.

A fieldtrip to Ilulissat took place in 2008 after a small pilotstudy had been performed at the clinic.

Objectives: To estimate the prevalence of periapical pathology in sled dogs with cut or otherwise traumatized canines and to study if dogs with pulp exposure of the canines have more fractured incisors compared to dogs with intact canines.

Methods: In 59 Greenland Sled Dogs a clinical examination for dental fractures of the canines and the incisors was performed and all canines were radiographed in order to evaluate the presence of periapical periodontitis.

Results: The prevalence of pulp exposure in the canines cut (CC) group was 91.7 % of the dogs and 21.3% in the noncut (nCC) group. At tooth level the prevalence were 85.1 and 6.9 % respectively. The prevalence of periapical periodontitis (PAP) in canine teeth with pulp exposure in the two groups were 87.2 and 75 % respectively.

Of the 7 dogs with a history of cut the canines all 7 had at least 1 fractured incisor while this was only seen in 42.6 % of the dogs in the nCC group. Among the nCC dogs 80 % of these dogs with a pulp exposure in one or more canines also showed fractures of the incisors.

In the group of dogs having an exposed pulp (PE) of the canines the prevalence of periapical periodontitis was 82.3 % while this it was only 0.8 % in the group of dogs without pulp exposure. The prevalence of dogs with fractures of the incisors was 88.2 % and 32.4 % respectively for these two groups.

Clinical Significance: This study shows, as expected, a high risk of getting periapical periodontitis when the pulp gets exposed as they most often do when canine teeth are cut or when **t**raumatized by accident. Also a significant higher number of fractured incisors were found in dogs with pulp exposure in the canines.

More studies needs to be performed to clarify the effect of pulp exposure in canines in relation to the higher risk of having an incisor fractured too. Pain in canines may affect the way the dog eat and bite. Shorter canine crowns could also be a direct reason for possible higher forces being put on to the incisors instead of on a canine with a normal length.